

IN THE CLAIMS:

1 1-25. (CANCELLED)

1 26. (PREVIOUSLY PRESENTED) A method for operating a router, comprising:
2 receiving a first message from a client, the first message directed to a server to
3 request a traffic flow from the server to the client;
4 determining a sequence number of the first message;
5 reading a second message from the server in order to determine if the message is a
6 response to the first message, and determining if the second message is a response to the
7 first message by checking a sequence number in the second message;
8 reading from the first message and the second message at least one parameter of
9 the traffic flow, the traffic flow requested by the client for the server to transmit to the
10 client;
11 writing the at least one parameter into a resource reservation request message
12 (RSVP request message);
13 transmitting, in response to the second message, the RSVP request message to the
14 client, the RSVP message establishing a path to the client;
15 receiving a RSVP reply message from the client, the RSVP reply message reserv-
16 ing resources for the requested traffic flow;
17 receiving a data message of the traffic flow from the server; and
18 transmitting the data message of the traffic flow with a resource reservation indi-
19 cia in the data message, the resource reservation indicia to direct the data message to
20 travel along the reserved resources.

1 27. (CURRENTLY AMENDED) The method of claim 22 26, further comprising:
2 using a Resource reSerVation (RSVP) protocol to learn the contents of messages
3 received by the router.

1 28. (CURRENTLY AMENDED) The method of claim 2226, further comprising:
2 connecting the router one hop away from the server;
3 ~~receiving first messages by the router, the first messages originating from computers connected to the Internet and directed to the server; and~~
4 ~~receiving second messages by the router, the second messages originating from the server and directed to clients connected to the Internet.~~

1 29-32. (CANCELLED)

1 33. (PREVIOUSLY PRESENTED) A router, comprising:
2 means for receiving a first message from a client, the first message directed to a server to request a traffic flow from the server to the client;
4 means for determining a sequence number of the first message;
5 means for reading a second message from the server in order to determine if the message is a response to the first message, and determining if the second message is a response to the first message by checking a sequence number in the second message;
8 means for reading from the first message and the second message at least one parameter of the traffic flow, the traffic flow requested by the client for the server to transmit to the client;
11 means for writing the at least one parameter into a resource reservation request message (RSVP request message);
13 means for transmitting, in response to the message the RSVP request message to the client, the RSVP message establishing a path to the client;
15 means for receiving a RSVP reply message from the client, the RSVP reply message reserving resources for the requested traffic flow;
17 means for receiving a data message of the traffic flow from the server; and
18 means for transmitting the data message of the traffic flow with a resource reservation indicia in the data message, the resource reservation indicia to direct the data message to travel along the reserved resources.

21 34. (CURRENTLY AMENDED) The router of claim 2933, further comprising:
22 means for using a Resource reSerVation (RSVP) protocol to learn the contents of
23 messages received by the router.

1 35. (CURRENTLY AMENDED) The router method of claim 2933, further comprising:
2 means for connecting the router one hop away from the server;
3 means for ~~receiving first messages by the router, the first messages originating~~
4 from computers connected to the Internet and directed to the server; and
5 means for ~~receiving second messages by the router, the second messages originating~~
6 from the server and directed to clients connected to the Internet.

1 36. (CURRENTLY AMENDED) A method, ~~for operating a router~~, comprising:
2 receiving a first message from a client, the first message directed to a server to re-
3 quest a traffic flow stream from the server to the client;
4 determining a sequence number of the first message;
5 receiving a second message from the server;
6 checking a sequence number in the second message to determine, and determining
7 that the second message is a response to the first message;
8 reading characteristics from the first message and the second message to identify
9 the stream from the server to the client;
10 snooping the second message to determine a bandwidth of the stream; and
11 reserving resources within a computer network on behalf of the server for alloca-
12 tion to the stream.

1 37. (CANCELLED)

1 38. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:

2 defining the first message as a Real Time Streaming Protocol (RTSP) request
3 message.

1 39. (PREVIOUSLY PRESENTED) The method of claim 36, further comprising:
2 defining the second message as an RTSP response message.

1 40. (CURRENTLY AMENDED) A router, comprising:
2 means for receiving a first message from a client, the first message directed to a
3 server to request a traffic flow stream from the server to the client;
4 means for determining a sequence number of the first message;
5 means for receiving a second message from the server;
6 means for checking a sequence number in the second message to determine , and
7 determining—that the second message is a response to the first message;
8 means for reading characteristics from the first message and the second message
9 to identify the stream from the server to the client;
10 means for snooping the second message to determine a bandwidth of the stream;
11 and
12 means for reserving resources within a computer network on behalf of the server
13 for allocation to the stream.

1 41. (CANCELLED)

1 42. (PREVIOUSLY PRESENTED) The router of claim 40, further comprising:
2 means for defining the first message as a Real Time Streaming Protocol (RTSP)
3 request message.

1 43. (PREVIOUSLY PRESENTED) The router of claim 40, further comprising:
2 means for defining the second message as an RTSP response message.

1 44. (CURRENTLY AMENDED) A router, comprising:
2 a packet frame receiver configured to receive a first message from a client, the
3 first message directed to a server to request a traffic flow stream from the server to the
4 client;
5 the packet frame receiver further configured to receive a second message from the
6 server;
7 a traffic scheduler configured to determine a sequence number of the first mes-
8 sage, and to check a sequence number in the second message to determine that the second
9 message is a response to the first message, and to read characteristics from the first mes-
10 sage and the second message to identify the stream from the server to the client;
11 a packet classification engine ~~for~~configured to snooping the second message to
12 determine a bandwidth of the stream; and
13 a resource reservation protocol (RSVP) transmitter proxy configured to reserve
14 resources within a computer network on behalf of the server for allocation to the stream.

1 45. (CANCELLED)

1 46. (PREVIOUSLY PRESENTED) The router of claim 44, further comprising:
2 the first message is further defined as a Real Time Streaming Protocol (RTSP)
3 request message.

1 47. (PREVIOUSLY PRESENTED) The router of claim 44, further comprising:
2 the second message is further defined as an RTSP response message.

1 48-49. (CANCELLED)

1 50. (NEW) Software encoded in one or more computer readable media and when exe-
2 cuted operable to:

3 receive a first message from a client, the first message directed to a server to re-
4 quest a traffic flow stream from the server to the client;
5 determine a sequence number of the first message;
6 receive a second message from the server;
7 determine that the second message is a response to the first message by compari-
8 son of a sequence number in the second message to the sequence number of the first mes-
9 sage;
10 read characteristics from the first message and the second message to identify the
11 stream from the server to the client;
12 determine a bandwidth of the stream; and
13 reserve resources within a computer network on behalf of the server for the
14 stream.

1 51. (NEW) The router of claim 44, wherein the RSVP transmitter proxy is further con-
2 figured to generate and send one or more RSVP Path messages on behalf of the server,
3 the RSVP path messages containing the bandwidth of the stream.

1 52. (NEW) The router of claim 51, wherein the one or more RSVP Path messages in-
2 clude a sender Tspec object containing the bandwidth of the stream.

1 53. (NEW) The router of claim 44, wherein the RSVP transmitter proxy is further con-
2 figured to terminate RSVP Reservation (Resv) messages that are sent to the server.

1 54. (NEW) The router of claim 44, wherein the RSVP transmitter proxy is further con-
2 figured to generate and send one or more RSVP Path Teardown messages on behalf of
3 the server, to release the reserved resourced allocated to the stream.

1 55. (NEW) The router of claim 44, wherein the characteristics comprise:
2 a source address;

3 a destination address;
4 a source port number;
5 a destination port numbers; and
6 a transport layer protocol.

1 56. (NEW) The router of claim 44, wherein the packet classification engine is further
2 configured to interpret the second message according to Session Description Protocol
3 (SDP).

1 57. (NEW) The router of claim 44, further comprising:
2 a session manager configured to store the characteristics and the bandwidth of the
3 stream.

1 58. (NEW) The router of claim 44, wherein the RSVP transmitter proxy is further config-
2 ured to select a Differentiated Services Codepoint (DSCP) value based on the bandwidth
3 of the stream.

1 59. (NEW) The router of claim 58, wherein the RSVP transmitter proxy is further config-
2 ured to load the DSCP value into a RSVP Path message generated and sent on behalf of
3 the server.

1 60. (NEW) The method of claim 36, wherein the step of reserving resources within a
2 computer network further comprises:
3 generating and sending one or more RSVP Path messages on behalf of the server,
4 the one or more RSVP path messages containing the bandwidth of the stream.

1 61. (NEW) The method of claim 60, wherein the one or more RSVP Path messages in-
2 clude a sender Tspec object containing the bandwidth of the stream.

- 1 62. (NEW) The method of claim 36, further comprising:
 - 2 terminating one or more RSVP Reservation (Resv) messages that are sent to the
 - 3 server.
- 1 63. (NEW) The method of claim 36, further comprising:
 - 2 generating and sending one or more RSVP Path Teardown messages on behalf of
 - 3 the server, to release the reserved resourced allocated to the stream.
- 1 64. (NEW) The method of claim 36, wherein the characteristics comprise:
 - 2 a source address;
 - 3 a destination address;
 - 4 a source port number;
 - 5 a destination port numbers; and
 - 6 a transport layer protocol.
- 1 65. (NEW) The method of claim 36, further comprising:
 - 2 interpreting the second message according to Session Description Protocol (SDP).
- 1 66. (NEW) The method of claim 36, further comprising:
 - 2 storing the characteristics and the bandwidth of the stream in a data structure.
- 1 67. (NEW) The method of claim 36, further comprising:
 - 2 selecting a Differentiated Services Codepoint (DSCP) value based on the band-
3 width of the stream.
- 1 68. (NEW) The method of claim 67, further comprising:
 - 2 loading the DSCP value into a RSVP Path message generated and sent on behalf
3 of the server.